

List of Claims

1. (previously presented) A method of verifying proper coupling of an implement assembly to a lift arm assembly by an operator who is located in a cab of a work machine, with (i) the work machine including the implement assembly and the lift arm assembly, (ii) the implement assembly including a hinge plate, (iii) the hinge plate having a first coupling aperture extending therethrough, (iv) the lift arm assembly having a lift arm and a cylinder, and (v) the cylinder being secured to the lift arm, comprising the steps of:

providing the implement coupler having (i) a first outside support plate, (ii) a second outside support plate spaced apart from the first outside support plate, (iii) a first inside support plate interposed the first and second outside support plates, (iv) a second inside support plate spaced apart from the first inside support plate and interposed the first and second outside support plates, (v) a center box section interposed the first and second inside support plates, the center box section having a void defined therein which is configured to receive an implement pin, and (vi) a rear box section interposed and secured to the first and second outside support plates, the rear box section having (i) a length which extends from the first outside support plate to the second outside support plate and (ii) a width which extends from an upper most edge of the rear box section to a lower most edge of the rear box section, said length being greater than said width;

positioning the cylinder within the rear box section;

advancing a hydraulic fluid into the cylinder so as to move a pin from a first pin position to a second pin position, wherein (i) the pin is spaced apart from the first coupling aperture when the pin is located in the first pin position, and (ii) the pin extends through the first coupling aperture when the pin is located in the second pin position; and

viewing the pin when the pin is located in the second pin position by the operator from a position within the cab whereby proper coupling of the implement assembly to the lift arm assembly is verified by the operator without having to exit the cab.

2. (original) The method of claim 1, wherein:

the hinge plate further has a hook portion,
the lift arm has a support bar, and
the hook portion hookingly engages the support bar.

3. (original) The method of claim 2, wherein:
the lift arm further has a support plate,
the support plate has a second coupling aperture defined therethrough, and
the pin further extends through the second coupling aperture when the pin
is located in the second pin position.

4. (cancelled)

5. (original) The method of claim 1, wherein:
the work machine includes a seat positioned within the cab, and
the viewing step occurs while the operator is seated upon the seat.

6. (original) The method of claim 1, wherein:
the viewing step includes the step of viewing an end portion of the pin
when the pin is located in the second pin position by the operator from the position within
the cab, and
the end portion of the pin is advanced through the first coupling aperture
when the pin is moved from the first pin position to the second pin position.

7. (previously presented) A method of verifying proper coupling of
an implement assembly to a lift arm assembly by an operator who is located in a cab of a
work machine, with (i) the work machine including the implement assembly and the lift
arm assembly, and (ii) the implement assembly having a first coupling aperture,
comprising the steps of:
providing an implement coupler having (i) a first outside support plate, (ii)
a second outside support plate spaced apart from the first outside support plate, (iii) a first
inside support plate interposed the first and second outside support plates, (iv) a second

inside support plate spaced apart from the first inside support plate and interposed the first and second outside support plates, (v) a center box section interposed the first and second inside support plates, the center box section having a void defined therein which is configured to receive an implement pin, and (vi) a rear box section interposed and secured to the first and second outside support plates, the rear box section having (i) a length which extends from the first outside support plate to the second outside support plate and (ii) a width which extends from an upper most edge of the rear box section to a lower most edge of the rear box section, said length being greater than said width;

positioning a cylinder within the rear box section;

advancing a hydraulic fluid into the cylinder so as to move a pin from a first pin position to a second pin position, wherein (i) the pin is spaced apart from the first coupling aperture when the pin is located in the first pin position, and (ii) the pin is positioned within the first coupling aperture when the pin is located in the second pin position; and

viewing the pin when the pin is located in the second pin position by the operator from a position within the cab whereby proper coupling of the implement assembly to the lift arm assembly is verified by the operator without having to exit the cab.

8. (original) The method of claim 7, wherein:

the implement assembly includes a hinge plate having the first coupling aperture defined therein.

9. (original) The method of claim 7, wherein:

the lift arm assembly includes a lift arm, and
the cylinder is secured to the lift arm.

10. (original) The method of claim 8, wherein:

the hinge plate further has a hook portion,
the lift arm has a support bar, and
the hook portion hookingly engages the support bar.

11. (previously presented) The method of claim 9, wherein:
the lift arm assembly further has a support plate,
the support plate has a second coupling aperture defined therethrough, and
the pin further extends through the second coupling aperture when the pin
is located in the second pin position.

12. (cancelled)

13. (original) The method of claim 7, wherein:
the work machine includes a seat positioned within the cab, and
the viewing step occurs while the operator is seated upon the seat.

14. (original) The method of claim 7, wherein:
the viewing step includes the step of viewing an end portion of the pin
when the pin is located in the second pin position by the operator from the position within
the cab, and
the end portion of the pin is advanced through the first coupling aperture
when the pin is moved from the first pin position to the second pin position.

15. (previously presented) A work machine, comprising:
a cab in which an operator may be located;
an implement assembly having an implement and a hinge plate secured
thereto, wherein said hinge plate has a first coupling aperture extending therethrough;
a lift arm assembly having a lift arm;
an implement coupler interposed and secured to said lift arm assembly and
said implement assembly, said implement coupler having (i) a first outside support plate,
(ii) a second outside support plate spaced apart from said first outside support plate, (iii) a
first inside support plate interposed said first and second outside support plates, (iv) a
second inside support plate spaced apart from said first inside support plate and
interposed said first and second outside support plates, (v) a center box section interposed

said first and second inside support plates, said center box section having a void defined therein which is configured to receive an implement pin, and (vi) a rear box section interposed and secured to said first and second outside support plates, said rear box section having (i) a length which extends from the first outside support plate to the second outside support plate and (ii) a width which extends from an upper most edge of the rear box section to a lower most edge of the rear box section, said length being greater than said width; and

a cylinder positioned within said rear box section,

wherein (i) said cylinder is operable to move a pin between a first pin position and a second pin position in response to advancement of a hydraulic fluid within said cylinder, (ii) said pin is spaced apart from said coupling aperture when said pin is located in said first pin position, (iii) said pin extends through said coupling aperture when said pin is located in said second pin position, (iv) said pin is positioned within a field of vision of said operator when (A) said pin is located in said second pin position, and (B) said operator is located within said cab.

16. (original) The work machine of claim 15, wherein:

said cab has a seat located therein on which said operator may be seated,

said pin is positioned within said field of vision of said operator when (A) said pin is located in said second pin position, and (B) said operator is seated upon said seat.

17. (original) The work machine of claim 15, wherein:

said hinge plate further has a hook portion,

said lift arm has a support bar, and

said hook portion, hookingly engages said support bar.

18. (original) The work machine of claim 17, wherein:

said lift arm further has a support plate,

said support plate has a second coupling aperture defined therethrough,

and

said pin further extends through said second coupling aperture when said pin is located in said second pin position.

19. (cancelled)

20. (original) The work machine of claim 15; wherein:

said pin includes an end portion,

said end portion of said pin is advanced through said first coupling aperture when said pin is moved from said first pin position to said second pin position, and

said end portion of said pin is positioned within said field of vision of said operator when (A) said pin is located in said second pin position, and (B) said operator is located within said cab.

21. (currently amended) A method of verifying proper coupling of an implement assembly to a lift arm assembly by an operator who is located in a cab of a work machine, with (i) the work machine including the implement assembly, the lift arm assembly, and a linkage assembly mechanically coupled to the implement assembly (ii) the implement assembly including a hinge plate, (iii) the hinge plate having a first coupling aperture extending therethrough, (iv) the lift arm assembly having a lift arm and a cylinder, and (v) the cylinder being secured to the lift arm, comprising the steps of:

forming a box boom configuration on the lift arm to define a boom having a substantially rectangular cross-section that extends over at least a predetermined portion of the boom having a hollow interior equal to or greater than one-half of the length;

positioning the linkage assembly in a predetermined manner with the boom;

actuating the cylinder so as to move a pin from a first pin position to a second pin position, wherein (i) the pin is spaced apart ~~from~~ from the first coupling aperture when the pin is located in the first pin position, and (ii) the pin extends through the first coupling aperture when the pin is located in the second pin position; and

viewing the pin when the pin is located in the second pin position by the operator from a position within the cab, wherein the view of the pin by the operator from the position within the cab is unobstructed by the linkage assembly.

22. (previously presented) The method of claim 21, wherein the linkage assembly includes a front tilt lever coupled to the implement assembly, further comprising:

positioning the front tilt lever in substantial alignment with a longitudinal center line of the boom.

23. (previously presented) The method of claim 22, wherein the linkage assembly includes a rear tilt lever coupled to the boom, further comprising:

positioning the rear tilt lever in substantial alignment with the longitudinal center line of the boom.

24. (original) The method of claim 21, wherein (i) the linkage assembly includes a front tilt lever and (ii) the implement assembly includes an implement coupler having a first outside support plate and a second outside support plate, further comprising:

coupling the front tilt lever to the implement coupler so that the front tilt lever is interposed the first outside support plate and the second outside support plate.

25. (previously presented) The method of claim 21, wherein (i) the linkage assembly includes a rear tilt lever and a front tilt link and (ii) the boom has a first longitudinally extending side wall and a second longitudinally extending side wall, further comprising:

coupling the rear tilt lever and the front tilt link to the boom so that the rear tilt lever and the front tilt link are interposed the first longitudinally extending side wall and the second longitudinally extending side wall.

26. (new) The method of claim 21, wherein the step of forming a box boom configuration on the lift arm comprises forming the box boom with a constant size rectangular cross section that extends over at least about one half a length between a rear lever space and a front lever space of the lift arm.